## SEQUENCE LISTING

<110> Eiken Kagaku Kabushiki Kaisha

<120> Method of Synthesizing Nucleic Acid.

<130> E2-001PCT

<140>

<141>

<150> JP-1998-317476

<151> 1998-11-09

<160> 29

<170> PatentIn Ver. 2.0

<210> 1

<211> 52

<212> DNA

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Artificially

synthesized primer sequense

**BEST AVAILABLE COPY** 

cgactctaga ggatccccgg gtactttttg ttgtgtggaa ttgtgagcgg at

**52** 

**<210> 2** 

<211> 51

<212> DNA

<213 Artificial Sequence

<220>

<223> Description of Artificial Sequence:Artificially
synthesized primer sequense

**<400> 2** 

acaacgtcgt gactgggaaa accctttttg tgcgggcctc ttcgctatta c

51

<210> 3

<211> 21

<212> DNA

<213> Artificial Sequence

**<220>** 

<223> Description of Artificial Sequence:Artificially
synthesized primer sequense

actitatget teeggetegt a

21

**<210> 4** 

**<211> 17** 

<212> DNA

<213> Artificial Sequence

**<220>** 

<223> Description of Artificial Sequence:Artificially
 synthesized primer sequense

<400> 4

gttgggaagg gcgatcg

17

<210> 5

<211> 600

<212> DNA

<213> Bacteriophage M13mp18

<400> 5

gegeceaata egeaaacege eteteceege gegttggeeg atteattaat geagetggea 60
cgacaggttt eeegactgga aagegggeag tgagegeaac geaattaatg tgagttaget 120
cacteattag geaceeeagg etttacaett tatgetteeg getegtatgt tgtgtggaat 180
tgtgagegga taacaattte acacaggaaa eagetatgae eatgattaeg aattegaget 240
eggtaeeegg ggateeteta gagtegaeet geaggeatge aagettggea etggeegteg 300
ttttacaacg tegtgaetgg gaaaaceetg gegttaeeea aettaatege ettgeageac 360
BEST AVAILABLE COPY

atccccttt cgccagctgg cgtaatagcg aagaggcccg caccgatcgc ccttcccaac 420
agttgcgcag cctgaatggc gaatggcgct ttgcctggtt tccggcacca gaagcggtgc 480
cggaaagctg gctggagtgc gatcttcctg aggccgatac ggtcgtcgtc ccctcaaact 540
ggcagatgca cggttacgat gcgcccatct acaccaacgt aacctatccc attacggtca 600

<210> 6

<211> 63

<212> DNA

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence:Artificially
synthesized primer sequence

**<400>** 6

ctcttccaaa agtaaggcag gaaatgtgaa accagatcgt aatttggaag acccagcatc 60 cag

<210> 7

<211> 43

<212> DNA

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Artificially synthesized primer sequence

gtggattcgc actcctcccg ctgatcggga cctgcctcgt cgt

43

<210> 8

<211> 16

<212> DNA

<213> Artificial Sequence

<220> □

<223> Description of Artificial Sequence: Artificially synthesized primer sequence

**<400> 8** 

gccacctggg tgggaa

16

<210> 9

**<211> 22** 

<212> DNA

<213> Artificial Sequence

**<220>** 

<223> Description of Artificial Sequence:Artificially
synthesized primer sequence

**<400> 9** 

<210> 10

<211> 430

<212> DNA

<213> Hepatitis B virus

<400> 10

ctccttgaca ccgcctctgc tctgtatcgg gaggccttag agtctccgga acattgttca 60 cctcaccata cagcactcag gcaagctatt ctgtgttggg gtgagttaat gaatctggcc 120 acctgggtgg gaagtaattt ggaagaccca gcatccaggg aattagtagt cagctatgtc 180 aatgttaata tgggcctaaa aatcagacaa ctattgtggt ttcacatttc ctgccttact 240 tttggaagag aaactgtttt ggagtatttg gtatcttttg gagtgtggat tcgcactcct 300 cccgcttaca gaccaccaaa tgcccctatc ttatcaacac ttccggaaac tactgttgtt 360 agacgacgag gcaggtcccc tagaagaaga actccctcgc ctcgcagacg aaggtctcaa 420 tcgccgcgtc

<210> 11

<211> 293

<212> DNA

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence:Artificially
 synthesized sequence

acaacgtcgt gactgggaaa accettttig tgcgggcete ttcgctatta cgccagetgg 60 cgaaaggggg atgtgctgca aggcgattaa gttgggtaac gccagggttt tcccagtcac 120 gacgttgtaa aacgacggce agtgccaage ttgcatgcet gcaggtcgae tctagaggat 180 ccccgggtae cgagetcgaa ttcgtaatea tggtcatage tgtttcctgt gtgaaattgt 240 tatccgctca caattccaca caacaaaaag tacccgggga tcctctagag tcg 293

<210> 12

<211> 293

<212> DNA

<213> Artificial Sequence

**<220>** 

<223> Description of Artificial Sequence:Artificially
 synthesized sequence

**<400> 12** 

cacacagaa acagctatga ccatgattac gaattcgagc tcggtacccg gggatcctct 120 agagtcgacc tgcaggcatg caagcttggc actggccgtc gttttacaac gtcgtgactg 180 ggaaaaccct ggcgttaccc aacttaatcg ccttgcagca catcccctt tcgccagctg 240 gcgtaatagc gaagaggccc gcacaaaaag ggttttccca gtcacgacgt tgt 293

<210> 13

**<211> 459** 

<212> DNA

## <213> Artificial Sequence

<220>

<223> Description of Artificial Sequence:Artificially
synthesized sequence

<400> 13

acaacgtcgt gactggaaa accettttig tgcggcctc ttcgctatta cgccagctgg 60
cgaaaggggg atgtgctgca aggcgattaa gttgggtaac gccagggttt tcccagtcac 120
gacgttgtaa aacgacggcc agtgccaagc ttgcatgcct gcaggtcgac tctagaggat 180
ccccgggtac cgagctcgaa ttcgtaatca tggtcatagc tgtttcctgt gtgaaattgt 240
tatccgctca caattccaca caacaaaaag tacccgggga tcctctagag tcgacctgca 300
ggcatgcaag cttggcactg gccgtcgttt tacaacgtcg tgactggaa aaccctggcg 360
ttacccaact taatcgcctt gcagcacatc cccctttcgc cagctggct aatagcgaag 420
aggcccgcac aaaaagggtt ttcccagtca cgacgttgt 459

<210> 14

<211> 458

<212> DNA

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence:Artificially
 synthesized sequence

cacacagaa acagctatga ccatgattac gaattcgagc tcggtacccg gggatcctct 120
agagtcgacc tgcaggcatg caagcttggc actggccgtc gttttacaac gtcgtgactg 180
ggaaaaccct ggcgttaccc aacttaatcg ccttgcagca catcccctt tcgccagctg 240
gcgtaatagc gaagaggccc gcacaaaaag ggttttccca gtcacgacgt tgtaaaacga 300
cggccagtgc caagcttgca tgcctgcagg tcgactctag aggatcccc ggtaccgagc 360
tcgaattcgt aatcatggtc atagctgttt cctgtgtgaa attgttatcc gctcacaatt 420
ccacacaaca aaaagtaccc ggggatcctc tagagtcg 458

<210> 15

<211> 790

<212> DNA

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Artificially synthesized sequence

<400> 15

acaacgtcgt gactgggaaa accetttttg tgcgggcete ttcgctatta cgccagetgg 60 cgaaaggggg atgtgctgca aggcgattaa gttgggtaac gccagggttt tcccagtcac 120 gacgttgtaa aacgacggce agtgccaage ttgcatgcet gcaggtcgae tctagaggat 180 ccccgggtae cgagetcgaa ttcgtaatea tggtcatage tgtttcctgt gtgaaattgt 240 tatccgctca caattccaca caacaaaaag tacccgggga tcctctagag tcgacctgca 300 ggcatgcaag cttggcactg gccgtcgttt tacaacgtcg tgactgggaa aaccctggcg 360 ttacccaact taatcgcctt gcagcacate cccctttcgc cagetggct aatagcgaag 420

aggcccgcac aaaaagggtt ttcccagtca cgacgttgta aaacgacggc cagtgccaag 480 cttgcatgcc tgcaggtcga ctctagagga tccccgggta ctttttgttg tgtggaattg 540 tgaggcggata acaatttcac acaggaaaca gctatgacca tgattacgaa ttcgagctcg 600 gtacccgggg atcctctaga gtcgacctgc aggcatgcaa gcttggcact ggccgtcgtt 660 ttacaacgtc gtgactggga aaaccctggc gttacccaac ttaatcgcct tgcagcacat 720 ccccctttcg ccagctggcg taatagcgaa gaggcccgca caaaaagggt tttcccagtc 780 acgacgttgt

<210> 16

**<211> 789** 

<212> DNA

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence:Artificially
 synthesized sequence

<400> 16

cacacagaa acagctatga ccatgattac gaattcgagc tcggtacccg gggatcctct 120 agagtcgacc tgcaggcatg caagcttggc actggccgtc gttttacaac gtcgtgactg 180 ggaaaaccct ggcgttaccc aacttaatcg ccttgcagca catcccctt tcgccagctg 240 gcgtaatagc gaagaggccc gcacaaaaag ggttttccca gtcacgacgt tgtaaaacga 300 cggccagtgc caagcttgca tgcctgcagg tcgactctag aggatcccc ggtaccgagc 360 tcgaattcgt aatcatggtc atagctgtt cctgtgtgaa attgttatcc gctcacaatt 420 ccacacaaca aaaagtaccc ggggatcctc tagagtcgac ctgcaggcat gcaagcttgg 480

cactggccgt cgttttacaa cgtcgtgact gggaaaaccc tttttgtgcg ggcctcttcg 540 ctattacgcc agctggcgaa agggggatgt gctgcaaggc gattaagttg ggtaacgcca 600 gggttttccc agtcacgacg ttgtaaaacg acggccagtg ccaagcttgc at gcctgcag 660 gtcgactcta gaggatcccc gggtaccgag ctcgaattcg taatcatggt catagctgtt 720 tcctgtgtga aattgttatc cgctcacaat tccacacac aaaaagtacc cggggatcct 780 ctagagtcg

<210> 17

<211> 310

<212> DNA

(213) Artificial Sequence

<220>

<223> Description of Artificial Sequence:Artificially
synthesized sequence

<400> 17

gtggattcgc actcctccg ctgatcgga cctgcctcgt cgtctaacaa cagtagtttc 60 cggaagtgtt gataagatag gggcatttgg tggtctgtaa gcgggaggag tgcgaatcca 120 cactccaaaa gataccaaat actccaaaac agtttctctt ccaaaagtaa ggcaggaaat 180 gtgaaaccac aatagttgtc tgatttttag gcccatatta acattgacat agctgactac 240 taattccctg gatgctgggt cttccaaatt acgatctggt ttcacatttc ctgccttact 300 tttggaagag

<210> 18.

<211> 465

<212> DNA

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Artificially synthesized sequence

<400> 18

gtggattcgc actcctccg ctgatcggga cctgcctcgt cgtctaacaa cagtagtttc 60 cggaagtgtt gataagatag gggcatttgg tggtctgtaa gcgggaggag tgcgaatcca 120 cactccaaaa gataccaaat actccaaaac agtttctctt ccaaaagtaa ggcaggaaat 180 gtgaaaccac aatagttgtc tgatttttag gcccatatta acattgacat agctgactac 240 taattccctg gatgctgggt cttccaaatt acgatctggt ttcacatttc ctgccttact 300 tttggaagag aaactgtttt ggagtatttg gtatcttttg gagtgtggat tcgcactcct 360 cccgcttaca gaccaccaaa tgcccctatc ttatcaacac ttccggaaac tactgttgtt 420 agacgacgag gcaggtcccg atcagcgga ggagtgcgaa tccac 465

<210> 19

<211> 20.

<212> DNA

<213> M13mp18

<400> 19

ccggggatcc tctagagtcg

20

<211> 20 <212> DNA <213 M13mp18 mutant **<400> 20** ccggggatcc tctagagtca <210> 21 <211> 48 <212> DNA <213> Artificial Sequence <220> <223 Description of Artificial Sequence: Artificially synthesized primer sequence **<400> 21** cgactctaga ggatccccgg tttttgttgt gtggaattgt gagcggat <210> 22 **<211> 48** <212> DNA <213 > Artificial Sequence <220>

<223> Description of Artificial Sequence: Artificially

BEST AVAILABLE COPY

## synthesized primer sequence

<400> 22

tgactctaga ggatccccgg tttttgttgt gtggaattgt gagcggat

48

<210> 23

<211> 47

<212> DNA

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence:Artificially
synthesized primer sequence

**<400> 23** 

cgtcgtgact gggaaaaccc tttttgtgcg ggcctcttcg ctattac

47

<210> 24

<211> 21

<212> DNA

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence:Artificially
synthesized primer sequence

actitatect teegetegt a

21

**<210> 25** 

**<211> 17** 

<212> DNA

<213 > Artificial Sequence

<220>

<223> Description of Artificial Sequence:Artificially
 synthesized primer sequence

<400> 25

gttgggaagg ·gcgatcg

17

<210> 26

<211> 44

<212> DNA

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence:Artificially
synthesized primer sequence

**<400> 26** 

tgttcctgat gcagtgggca gctttagtct gcggcggtgt tctg

44

<210> 27 **<211> 45** <212> DNA <213> Artificial Sequence <220> <223 Description of Artificial Sequence: Artificially synthesized primer sequence **<400> 27**. tgctgggtcg gcacagcctg aagctgacct gaaatacctg gcctg <210> 28 <211> 18 <212> DNA <213> Artificial Sequence <220> <223 Description of Artificial Sequence: Artificially

45

**<400> 28** 

tgcttgtggc ctctcgtg

synthesized primer sequence

18

<210> 29

<211> 17

<212> DNA

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence:Artificially
 synthesized primer sequence

**<400> 29** 

gggtgtggga agctgtg

17